

Waste Management Greenhouse Gas Emissions and Sinks For California -- 2006

As Reported to the California Climate Action Registry (CCAR)¹

<http://www.climateregistry.org/CARROT/public/reports.aspx>

Scroll to "Waste Management"

	<u>MTCO₂e</u>
GHG Emission Sources (CO₂ and Methane²)	
Mandatory Reporting	
Mobile Emissions (Fleet Emissions ³)	+ 260,517
Stationary Combustion (power plants, heating ⁴)	+ 161,071
Indirect Emissions (Utility Power ⁵)	+ 14,151
Optional Reporting	
Landfill Emissions (Using SWICS Protocol ⁶)	+ 186,747
Subtotal of Reported Emissions	+ 622,486
GHG Emission Sinks⁷	
Optional Reporting	
Indirect Power Offsets (Biomass & Landfill Gas ⁸)	- 178,923
Recyclable Material Offsets (Using EPA WARM ⁹)	- 2,159,925
Landfill Carbon Storage (Using SWICS Protocol ⁶)	- 4,439,147
Subtotal of Reported Sinks	- 6,777,995
Total GHG Emission Sources and Sinks	- 6,155,509

¹ Mandatory reporting information verified and accepted by CCAR. Optional reporting is not subject to verification at this time.

² As a first-year reporter, WM is only obligated to report its CO₂ emissions, which were found to be within 2% error using CCAR protocols. Landfill methane emissions were included as an optional report.

³ WM operates approximately 3500 vehicles in California – most of them refuse collection trucks. They are WM's largest source of GHG emissions.

⁴ Stationary combustion includes anthropogenic CO₂ emissions from the combustion of fossil fuel, but does not include biogenic CO₂ emission from the combustion of biomass at 1 Wheelabrator biomass to energy facility nor does it include the biogenic emission of biogenic CO₂ from the combustion of landfill gas to energy facilities.

⁵ Indirect Emissions are primarily emissions associated with utility power purchases by WM at our California facilities.

⁶ Landfill emissions are limited to anthropogenic landfill methane emissions and do not include biogenic CO₂ emissions at landfills. Landfill carbon storage is the anthropogenic sequestration of carbon in anaerobic landfills expressed in CO₂e. The methane emissions and carbon sinks were estimated using the SWICS protocol -- SCS Engineers, "Current MSW Industry Position and State-of-the-Practice on LFG Collection Efficiency, Methane Oxidation, and Carbon Sequestration in Landfills", prepared for Solid Waste Industry for Climate Solutions (SWICS), July 2007.

⁷ GHG Emission Sinks are estimates of potential GHG reductions that may be attributable to WM operations.

⁸ This is an estimate of the amount of fossil fuel generated power that has been avoided through the generation of electricity by WM's biomass and landfill gas power plants in California. It is calculated using the current mix of power sources providing electrical energy to California per CCAR protocols.

⁹ Landfill carbon storage is estimated using the SWICS protocol cited above. It is based on the estimated amount of biogenic carbon that was placed in WM California landfills during 2006 and which will not decompose in the anaerobic environment of the landfills.